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09/919,706	08/01/2001	Kenichi Nanpci	1232-4747	5403

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EXAMINER
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HUNTSINGER, PETER K

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 09/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.



## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 7/5/06 have been fully considered but they are not persuasive.

The applicant argues on page 10 of the response in essence that:

**In Takahashi, the cutting off of power is dependent on the capacity level of the battery and not on any abnormality of the interface.**

- a. Takahashi et al. disclose when the printer is disconnected from the digital image sensing device, the digital image sensing device is reverted to battery power (col. 19, lines 11-20). If the battery power is low when the printer is disconnected, the digital image sensing device will be set to a sleep state (col. 19, lines 31-33). The digital image sensing device will not be in the battery driving mode unless the printer is disconnected. Thus the abnormality consists of the digital image sensing device being disconnected from the printer when the battery capacity of the digital image sensing device is small.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 26-28 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 26-28 are drawn to functional

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descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

“Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.”

“Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure’s functionality to be realized.”

Claims 26-28, while defining a storage medium, does not define a “computer-readable medium” and is thus non-statutory for that reason. A storage medium can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on “computer-readable medium” in order to make the claim statutory.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 5-11, 13-19, and 21-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Takahashi et al. European Publication 0862313.

Referring to claims 1, 10, and 18, Takahashi et al. disclose an image reading apparatus which operates under control of an external apparatus comprises an image sensing unit for reading an image, and a interface for transferring an image signal read by the image sensing unit to the external apparatus (Fig. 1, 101 and 102), the image apparatus comprising: a detector for detecting an abnormality of the interface on the basis of an electric potential of a predetermined position of the interface (control unit 104 of Fig. 1, col. 4, lines 14-19); and a controller for setting said image reading apparatus in a sleep state, in response to detection of any abnormality of the interface during an image reading process controlled by the external apparatus, until the communication with the external apparatus restarts (col. 19, lines 11-18, 31-33).

Referring to claims 2, 11, and 19, Takahashi et al. disclose wherein at least one of an internal circuit and mechanical position of the image sensing unit is initialized to the state identical to the state at the time when the apparatus is powered before or after the apparatus is set to the sleep state (col. 19, lines 11-18, 31-33).

Referring to claims 5, 13, and 21, Takahashi et al. disclose an A/D converter for converting the image signal output from the image sensing unit into a digital signal (col. 4, lines 5-13), wherein the interface transfers the digital image signal converted by said A/D converter to the external apparatus (col. 4, lines 38-44). Takahashi et al. disclose a CCD for converting the analog values into a digital image signal. It is inherent that a CCD has an A/D converter for converting light into an electric signal.

Referring to claims 6, 14, and 22, Takahashi et al. disclose wherein said detector detects any abnormality of the interface by detecting a change in potential of a power supply line included in the interface (col. 4, lines 20-24).

Referring to claims 7, 15, and 23, Takahashi et al. disclose wherein said detector detects any abnormality of the interface by detecting a change in potential of a data line included in the interface (col. 4, lines 14-20).

Referring to claims 8, 16, 24, and 27, Takahashi et al. disclose wherein the interface has a function of allowing to plug/unplug a cable without turning off a power supply of the external apparatus (col. 17, lines 42-45).

Referring to claims 9, 17, 25, and 28, Takahashi et al. disclose wherein the function of the interface complies with USB or IEEE1394 (col. 3, lines 51-56).

Referring to claim 26, Takahashi et al. disclose a storage medium that stores a program for implementing a control method (col. 19, lines 48-55) for an image reading apparatus which operates under control of an external apparatus and comprises an image sensing unit for reading an image, an interface for transferring an image signal read by the image sensing unit to the external apparatus, and a detector for detecting an abnormality of the interface on the basis of an electric potential of a predetermined position of the interface, comprising: computer readable program code means for, setting the image reading apparatus in sleep state, in response to detection of any abnormality of the interface during an image reading process controlled by the external apparatus, until the communication with the external apparatus restarts (col. 19, lines 11-18, 31-33).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi et al. European Publication 0862313 as applied to claims 1, 10, and 18 above, and further in view of Marwin Patent 5,280,162.

Referring to claim 4, Takahashi et al. disclose setting a sleep state with a controller, but do not disclose expressly a moving unit or a setting unit for controlling the light source in a sleep state. Marwin discloses a light source for irradiating a document with light (laser diode, col. 5, lines 20-23); an image sensor for converting light reflected by a document irradiated with light from said light source into an electrical image signal (photodetector 12 of Fig. 1, col. 5, lines 60-62); a moving unit for moving a relative position between an image of the document and said image sensor (motor control circuitry 22 of Fig. 1, col. 5, lines 23-26); and a setting unit for stopping power supply to at least one of said light source and said moving unit in the sleep state in accordance with a setup of a controller (col. 6, lines 25-27). Takahashi et al. and Marwin are combinable because they both are from the same field of peripheral image sensors. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to implement the scanner of Marwin into the image reading system of Takahashi et

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al. The motivation for doing so would have been to allow easy portability for the image reading device. Further, the image reading device of Marwin is simply a generic type of image reading device which could be substituted for the image reading device of Takahashi et al. Therefore, it would be obvious to combine Marwin with Takahashi et al. to obtain the invention as specified in claim 4.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter K. Huntsinger whose telephone number is (571)272-7435. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached on (571)272-7471. The fax phone

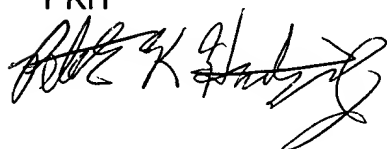
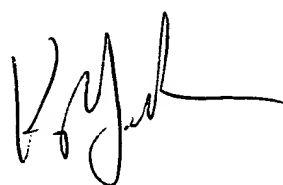


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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PKH

A handwritten signature in black ink, appearing to be 'PKH' followed by a stylized flourish.A handwritten signature in black ink, appearing to be 'King Y. Poon' followed by a horizontal line.

KING Y. POON  
PRIMARY EXAMINER